

REQUIRED JUNIOR LEVEL COURSES^{1,2}

6 CREDITS

- PHYS 108: University Physics I and PHYS 109: University Physics II**
- PHYS 124: Physics for Life Sciences I and PHYS 126: Physics for Life Sciences II**
- PHYS 144: Mechanics and Waves and PHYS 146: Electromagnetism and Radiation**

GENERAL SENIOR LEVEL COURSES³

18 CREDITS

A minimum of six credits must be completed at the 300- or 400-level.

PHYSICS COURSES

- PHSC 200: Physical Science Field Skills⁴ [SPRING]**
- PHYS 200: Introduction to Relativity [FALL]**
- PHYS 208: Quantum Aspects of Physics [FALL]**
- PHYS 212: Revolutions in Physics: The Structure of the Universe [WINTER]**
- PHYS 224: Fluids and Heat [WINTER]**
- PHYS 244: Mechanics [WINTER]**
- PHYS 250: Introduction to Biophysics [FALL]**
- PHYS 261: Physics of Energy [WINTER]**
- PHYS 301: Nuclear Physics [ODD FALL]**
- PHYS 302: Particle Physics [EVEN FALL]**
- PHYS 308: An Introduction to Semiconductors and Superconductors [EVEN FALL]**
- PHYS 320: The Origin of Elements [ODD FALL]**
- PHYS 324: Origins of Planetary Systems [EVEN FALL]**
- PHYS 332: Computational Physics [ODD FALL]**
- PHYS 372: Quantum Mechanics [EVEN WINTER]**
- PHYS 390: Advanced Physics Laboratory [FALL]**
- PHYS 495: Special Topics in Physics and Astrophysics⁶ [NOT OFFERED 2015/16]**
- PHYS 498: Independent Research⁶ [FALL/WINTER]**

IMPORTANT PLANNING NOTES

1. The six credits students choose to fulfill their junior level prerequisite requirements can also fulfill core requirements in the Bachelor of Science or Bachelor of Arts degree.
2. Students are required to consult with the MacEwan University Academic Calendar to ensure they meet the prerequisites for all Physics courses they enrol in.
3. Arts students who choose a Physics minor must comply with Bachelor of Science minor residency requirements. Science minors must complete a minimum of nine senior level MacEwan University credits, including a minimum of three credits at the 300- or 400-level.
4. **PHSC 200** is a Physical Sciences course that covers material relevant to Chemistry, Earth and Planetary Sciences, and Physics. It can be used toward a student's Chemistry, Earth and Planetary Sciences, or Physics requirements, in their major or their minor, but while it may be applied to any of these requirements, students can only receive credit for the course one time.
 - **PHSC 200** is not a discipline-specific course, while the Physics minor is discipline-specific. If a student pairs a Physics minor with a non-Physical Science major, and takes **PHSC 200** outside of their minor, it will not count toward the student's maximum of six major/minor credits in their options.
5. Students may take both **PHYS 495** and **PHYS 498** for credit a maximum of two times each, as long as the course topic is different each time they take either course.